THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT W. CARR and
ANNA LEE Y. TONKOVICH

Appeal No. 1997-1746
Application No. 08/469,801

ON BRIEF

Before KIMLIN, JOHN D. SMITH, and GARRIS, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 24 through 30 and 33 through 36 which are all of the claims pending in the application.

The subject matter on appeal relates to a method for reacting a feed gas to produce a product and separating the product from unreacted feed gas. This appealed subject matter is adequately represented by independent claim 24, a copy of which taken from the appellants' brief is appended to this decision.

The following references are relied upon by the examiner as evidence of obviousness:

Gesser et al. (Gesser), "The Direct Conversion of Methane to Methanol by Controlled Oxidation," Chemical Reviews, Vol. 85, No. 4, pp. 236-244 (1985).

Tonkovich, "The Simulated Countercurrent Chromatographic Reactor and Separator, A Thesis Submitted to the Faculty of the Graduate School of the University of Minnesota," pp. 1-210 (1992).

All of the appealed claims are rejected under 35 U.S.C. § 103 as being unpatentable over the Tonkovich thesis in view of Gesser.

All of the appealed claims also are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of related copending application Serial No. 08/469,685 in view of Gesser.

OPINION

The obviousness-type double patenting rejection has not been contested by the appellants on this appeal and therefore is hereby summarily sustained without further comment.

For the reasons set forth below, however, the examiner's section 103 rejection cannot be sustained.

In assessing the section 103 rejection, the sole issue to be resolved is whether the Tonkovich thesis was sufficiently accessible on the critical date (i.e., more than one year prior to the September 29, 1993 parent filing date for this application) so as to constitute a "printed publication" within the meaning of 35 U.S.C. § 102(b). The facts relevant to this issue are not in dispute.

On or about September 2, 1992 (i.e., approximately three weeks prior to the critical date), a noncirculating copy of the thesis was shelved in the University Archives of the University of Minnesota. Also on this date, the thesis author and title information were entered into the on-line card catalog of the University of Minnesota. Significantly, the thesis was not cataloged or indexed by subject matter.

It appears to be the examiner's implicit view, with which we agree, that these factual circumstances by themselves would

not provide sufficient accessibility to the Tonkovich thesis as to render it a "printed publication" under section 102(b). According to the examiner, however, an additional circumstance enhances the accessibility of this thesis to the requisite level. This additional circumstance constitutes the fact that the author of the thesis was the second of four listed authors of a prior publication (i.e., the Ray et al. reference of record) which was published in Chemical Engineering Science approximately two years prior to the critical date.

Specifically, the examiner contends that the commonality of authorship and similarity of titles for the Tonkovich thesis and the Ray et al. publication would have elevated the accessibility of the thesis to the level required for a "printed publication."[1] The examiner in essence believes the Ray et al. publication would have led a person researching the subject matter thereof to search for additional documents by the authors and thereby would have discovered the Tonkovich thesis via the author and title information in the previously

[1] It is here appropriate to emphasize the appellants' point, which the examiner does not contest, that the above mentioned titles are not particularly descriptive of the specific subject matter defined by the appealed claims.

mentioned on-line card catalog. On page 10 of the answer, the examiner describes his position as follows:

> The Ray et al reference was available in 1990 and the Tonkovich thesis was available on September 2, 1992. And as shown above and through the declarations submitted by appellants, and a key word search of the title and author lead to only two records, one of which was the Tonkovich thesis (Declaration of Sascha Von Mende, paragraph 4. Also note paragraph 6). Therefore, the Ray et al reference was the missing aid to uncover the Tonkovich thesis which was publicly available before September 29, 1992.

The statutory phrase "printed publication" has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was "published." Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1568, 7 USPQ2d 1057, 1062 (Fed. Cir.), cert. denied, 488 U.S. 892 (1988). The predecessor of our reviewing court has stated that a reference is a "printed publication" and a bar to patentability "upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising

reasonable diligence, can locate it . . .” In re Wyer, 655 F.2d 221, 226, 210 USPQ 790, 794 (CCPA 1981) (quoting I.C.E. Corp. v. Armco Steel Corp., 250 F. Supp. 738, 742, 743, 148 USPQ 537, 540 (SD NY 1966)). As expressed in the case of In re Cronyn, 890 F.2d 1158, 1161, 13 USPQ2d 1070, 1072 (Fed. Cir. 1989), documents are not accessible to the public if “they had not been either cataloged or indexed in a meaningful way.”

With these legal principles in mind, we are convinced that on the critical date the Tonkovich thesis was not accessible to the extent necessary to render it a “printed publication.” This is because, as of the critical date, the thesis “had not been either cataloged or indexed in a meaningful way” such that it could be located by “persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence.”

We are unpersuaded by the examiner’s argument that the Ray et al. reference would have rendered the thesis adequately accessible. As correctly pointed out by the appellants, this reference provides no information from which a person could have determined that any of four listed authors (including the

author of the here applied Tonkovich doctoral thesis) was a doctoral candidate. Thus, a person interested and ordinarily skilled in the subject matter would not have been led by this reference to search in a doctoral thesis indexing system for additional scientific papers written by one of the authors listed on the Ray et al. reference.

Moreover, even if for some reason a person were to search for a doctoral thesis, it is unclear whether the Tonkovich thesis of interest would have been discovered. This is because there is merit in the appellants' argument that such a search would have been limited to the UMI Dissertation Abstracts database which did not contain the Tonkovich thesis. Finally, our opinion on this matter is reinforced by the fact that the title of the Tonkovich thesis is not particularly descriptive of the subject matter described therein and here claimed. As a consequence, even if the title and author information in the University of Minnesota on-line card catalog were discovered by a person interested in the subject matter under consideration, it is further unclear whether this information would have led the person to actually obtain a copy of the Tonkovich thesis in order to research the contents

thereof for disclosure relevant to the subject matter of interest.

To summarize, the Tonkovich thesis was capable of being discovered and accessed but only upon the expenditure of extraordinary resources. However, as indicated above, the test for accessibility vis-à-vis a "printed publication" is based upon the exercise of "reasonable diligence" rather than the expenditure of extraordinary resources. In applying this "reasonable diligence" test to the case at bar, we conclude that the Tonkovich thesis cannot be regarded as a "printed publication" within the meaning of 35 U.S.C. § 102(b).

It follows that we cannot sustain the examiner's section 103 rejection of the claims on appeal as being unpatentable over the Tonkovich thesis in view of Gesser.

For the reasons expressed above, we have sustained the obviousness-type double patenting rejection but not the section 103 rejection of the claims on appeal.

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Edward C. Kimlin Administrative Patent Judge	)	
John D. Smith Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Bradley R. Garris Administrative Patent Judge	)	

BRG:tdl

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APPENDIX

24. A method for reacting a feed gas to produce a product and separating the product from unreacted feed gas, comprising the steps of:

(a) supplying a pressurized feed gas that includes methane and oxygen;

(b) reacting the feed gas to produce a reaction mixture which includes unreacted feed gas and a product that includes methanol and separating the product from the unreacted feed gas so as to effect a substantially simultaneous reaction and separation, wherein said reaction and separation are conducted in a plurality of compartments connected in series to form a closed loop and are carried out in separate zones of the same compartment; and

(c) controlling the introduction of feed gas, the movement of unreacted feed gas, and the recovery of product such that the compartment in which the reaction and separation occurs advances sequentially and continuously around the series of compartments in the closed loop.